

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/058,036 Confirmation No. : 2683  
First Named Inventor : Toshihiro TAKAGI  
Filed : January 29, 2002  
TC/A.U. : 2424  
Examiner : Justin E. Shepard  
Docket No. : 010482.50896US  
Title : Channel Selection Device for Digital/analog  
Broadcasting Receiver

**REPLY BRIEF**

**Mail Stop Appeal Brief- Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer dated December 11, 2008, Appellants present the following rebuttal to the points raised in the Answer.

Appellants claimed invention involves a novel and inventive – but simple – technique for selecting subchannels corresponding to a main channel that is currently being received. The rejection of Appellants' claims recognizes that the cited prior art all fail to disclose Appellants' channel selecting procedure, but instead attempts to cobble together a selection of various unrelated disclosures to support the conclusion of obviousness. Nevertheless, even using this hindsight reconstruction of Appellants' claims, the resultant procedure still would not disclose or suggest all of the elements of Appellants' claims.

**I. Appellants' Novel and Inventive Channel Selection Procedure**

Appellants disclose and claim a novel and inventive technique for selecting subchannels corresponding to a main channel that is currently being received, this technique is referred to as the "first channel selecting procedure." Appellants disclose and claim that a predetermined operation key "is assigned to fix the channel." The first channel selecting procedure is invoked "when receiving an instruction by the predetermined operation key that is not preceded by the numerical-value input keys." This procedure involves:

- fixing the main channel being currently received;
- waiting for the sub-channel number input; and
- then fixing the sub-channel of the number of the numerical value inputted by the numerical-value input keys.

In contrast to this relatively simple, but novel and inventive, technique for selecting a subchannel corresponding to a main channel currently being displayed (i.e., by using the predetermined operation key to fix the main channel), conventional techniques required an initial entry of a main channel number prior to fixing the main channel number and in order to select a subchannel corresponding to the main channel.

## **II. Shintani, Ellis and Noguchi at Best Disclose the Conventional Channel Selection Procedure**

The prior art relied upon to reject Appellants' claims, i.e., Ellis, Shintani and Noguchi, at best disclose or suggest the conventional technique for selecting a subchannel corresponding to a main channel. This was addressed in detail in the Appeal Brief in which Appellants

- presented numerous figures from Ellis demonstrating that all channel selection techniques required an initial input of a channel number;
- presented Figure 2A of Shintani demonstrating that the subchannel selection is preceded by a main channel number; and
- discussed how Noguchi fails to disclose or suggest selection of main and subchannels.

Thus, Appellants concluded that there could not be any disclosure or suggestion of the claimed first selecting procedure which requires fixing a main channel currently being received "when receiving an instruction by the predetermined operation key that is not preceded by the numerical-value input keys."

It appears from the Examiner's Answer that the Patent Office has the same basic understanding of the cited references. Specifically, the Patent Office acknowledges that "all the techniques taught by Ellis require an initial input of a numerical key."<sup>1</sup> Similarly, regarding Noguchi the Patent Office acknowledges "that Noguchi does not teach a channel changing procedure that meets the limitation found in the claims."<sup>2</sup> As such, it is clear that one skilled in the art

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<sup>1</sup> *Id.* (Emphasis added).

<sup>2</sup> *Id.*

would not have interpreted the combination of Shintani, Ellis and Noguchi as disclosing or suggesting the claimed first channel selecting procedure.

**III. One Skilled in the Art Would Not Have Combined Shintani, Ellis and Noguchi in the Manner Proposed by the Patent Office**

The Patent Office attempts to support the conclusion of obviousness by using Appellants claims as a guide to cobble together unrelated disclosures of Ellis and Noguchi in order to reconstruct Appellants' claims. This type of hindsight reconstruction is improper. Instead, the conclusion of obviousness must be based on what one skilled in the art would have found obvious at the time of the invention in view of the disclosures of Ellis and Noguchi. It will be demonstrated below that not only is there no disclosure or suggestion to combine Ellis and Noguchi in the manner set forth in the Examiner's Answer, even if one skilled in the art would have made such a modification, the resultant combination would not have disclosed or suggested all of the elements of Appellants' claims.

**A. The Patent Office Relies Upon Not Only a Combination of Ellis and Noguchi, but Also a Combination of Two Different Embodiments of Ellis**

As will be seen from a summary of the reasoning provided to support the rejection set forth below, the rejection of the first channel selecting procedure involves not only a combination of different embodiments of Ellis, but also a modification of Ellis by Noguchi. Specifically, the Patent Office relies upon pressing of the "Display" button of Noguchi as corresponding to the claimed "predetermined operation key". As illustrated in Figs. 4 and 11 of Noguchi

(reproduced below), this is disclosed as merely causing the display of information about the current program.

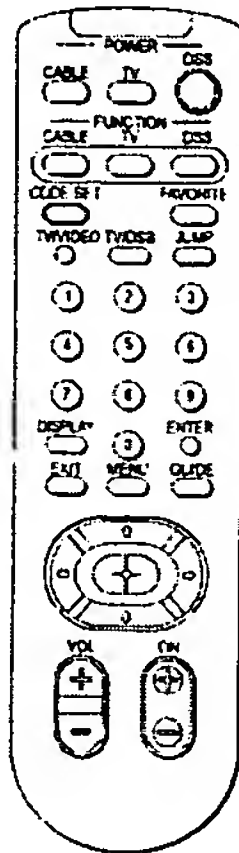


Fig. 4

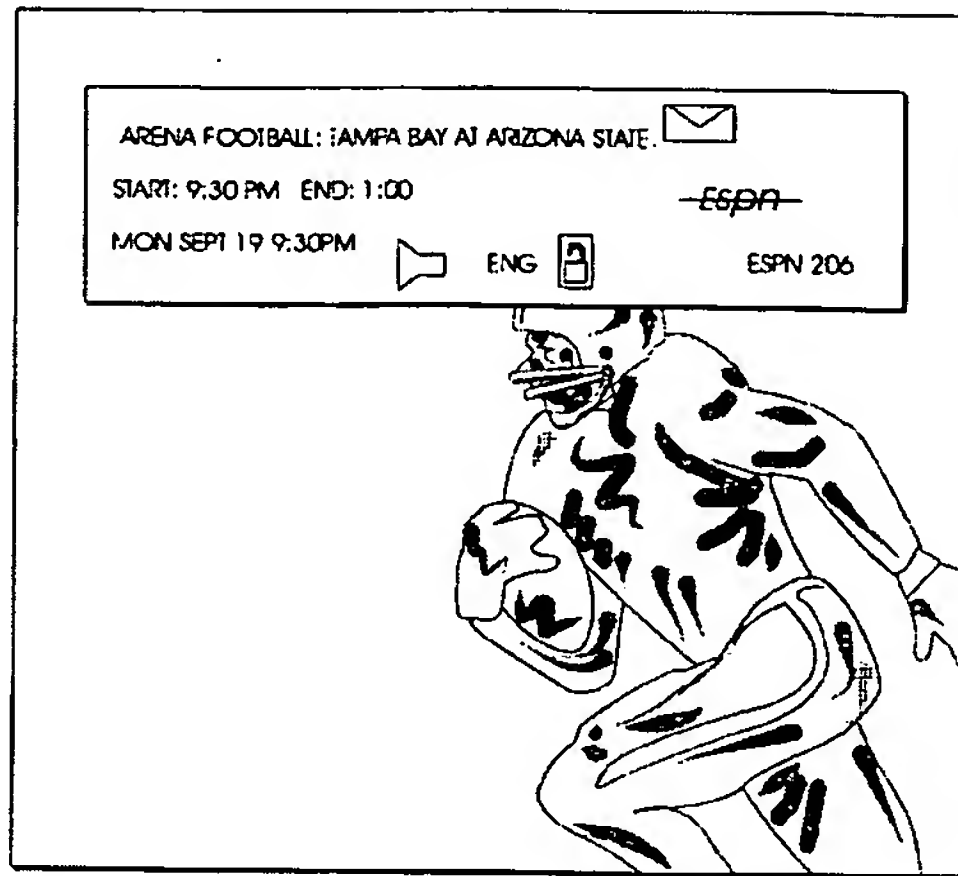
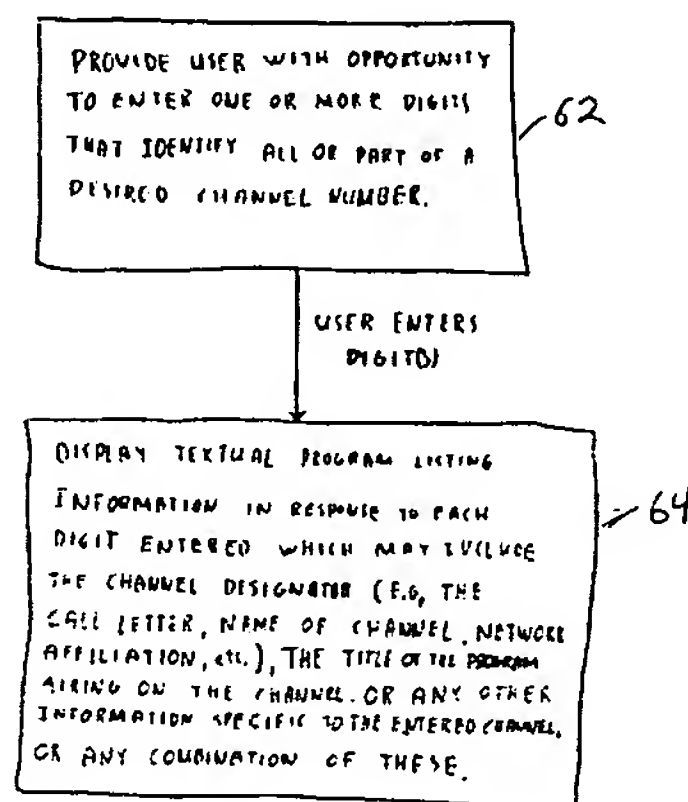


Fig. 11

The Patent Office then concludes that the “Display” button on the remote of Noguchi can replace the input of digits into the method of Fig. 3 of Ellis (reproduced below) such that the textual information is displayed in response to the “Display” button.



Ellis discloses that the method of Fig. 3 is used to provide information “in response to channel number entry”<sup>3</sup> and the appearance on the display device is illustrated in Fig. 4 (reproduced below).<sup>4</sup>

<sup>3</sup> See, for example, column 2, lines 21-33 and column 4, lines 40-43.

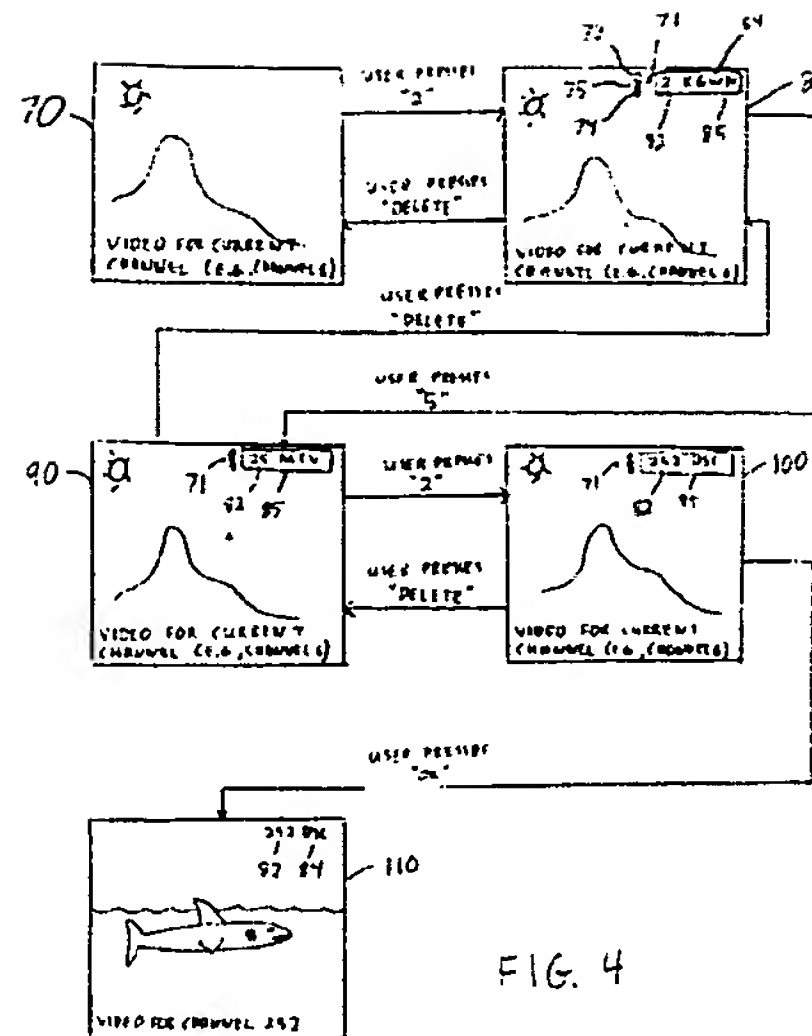


FIG. 4

Recognizing that combining Ellis and Noguchi in this manner still would not achieve subchannel selection, but instead would at most display channel information in response to pressing a "Display" key, the Patent Office then combines the information display technique of Figs. 3 and 4 of Ellis with the notification of related channel numbers described in connection with Figs. 9-11 of Ellis (reproduced below).

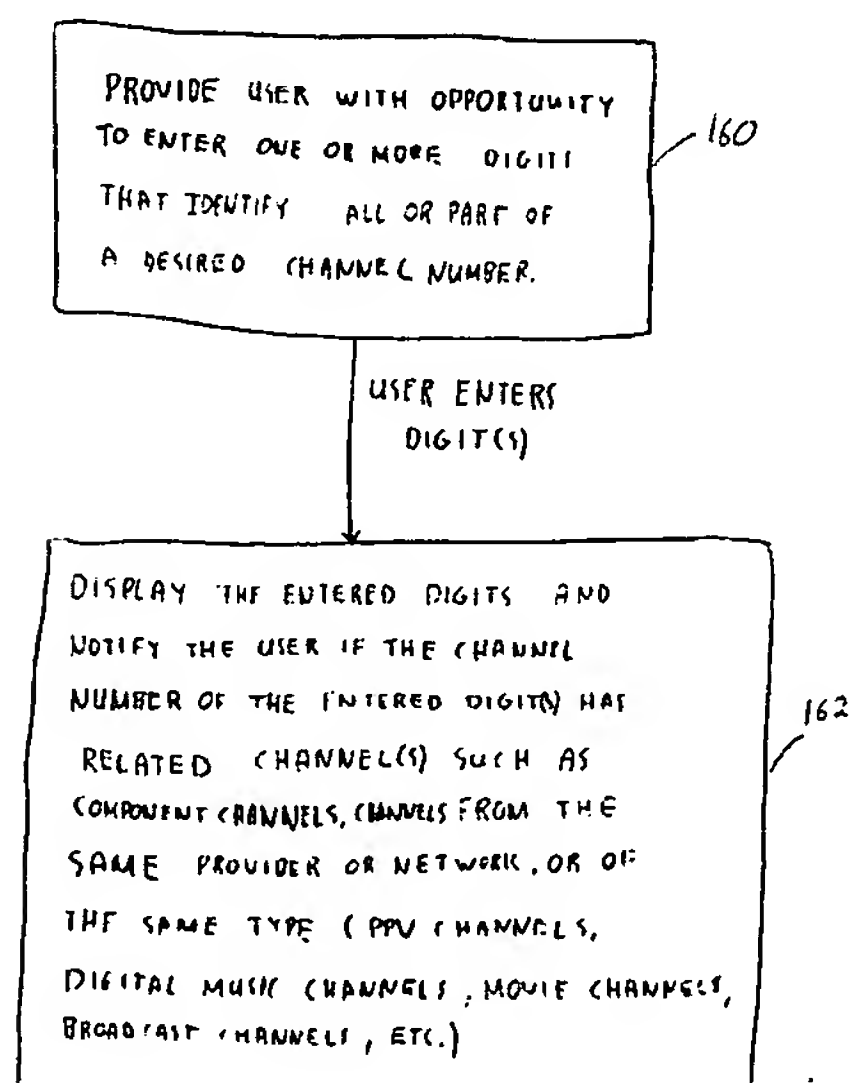


Fig. 9

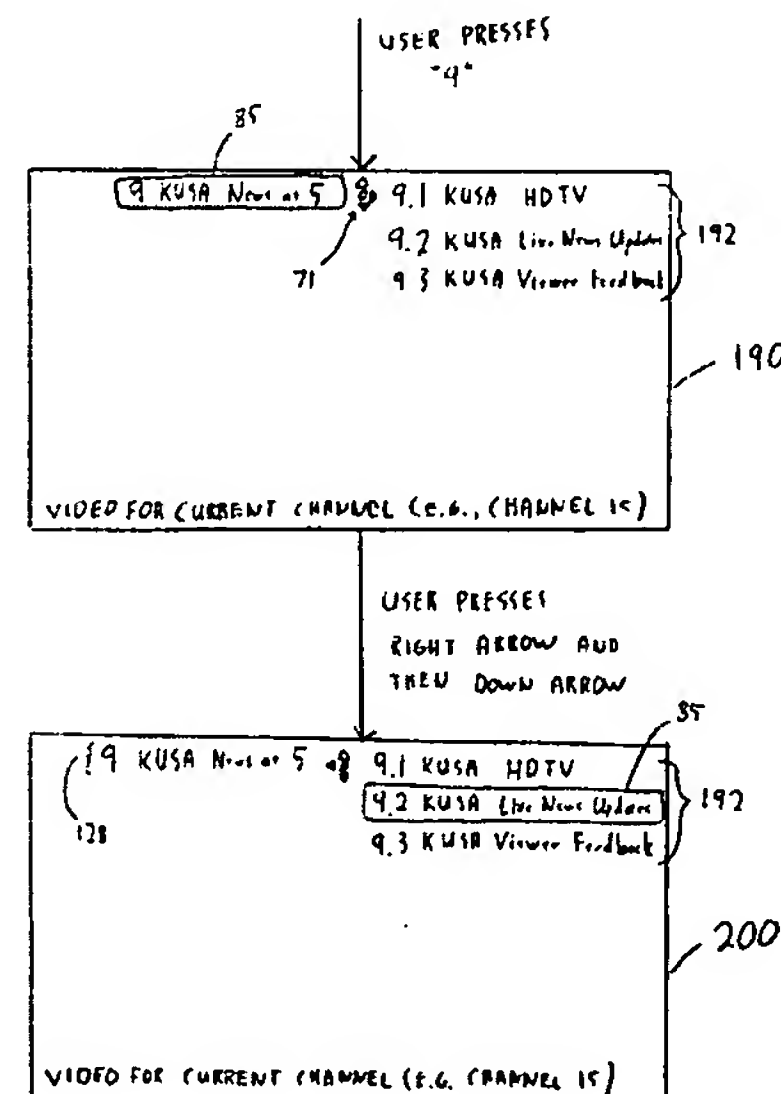


Fig. 11

<sup>4</sup> Column 4, lines 58-59.

**B. There is No Disclosure or Suggestion to Support the Combination of Two Different Embodiments of Ellis**

As is clear from the disclosure of Ellis, the methods of Figs. 3 and 9 are different techniques – the method of Fig. 3 is for “providing information”<sup>5</sup> and the method of Fig. 9 is for “notifying a user if the entered channel number has related channels.”<sup>6</sup> There is nothing in Ellis disclosing or suggesting that the different techniques of Figs. 3 and 9 could, or should, be combined such that a “Display” button is used to provide information about related subchannels.

The Patent Office does not even address this issue, but instead makes it appear that Ellis discloses that the flow chart of Fig. 3 produces the resultant screens of Fig. 11. When the methods of Figs. 3 and 9 (reproduced below) are seen together it is clear that these are distinct methods that are not combinable to achieve the claimed first channel selecting procedure.

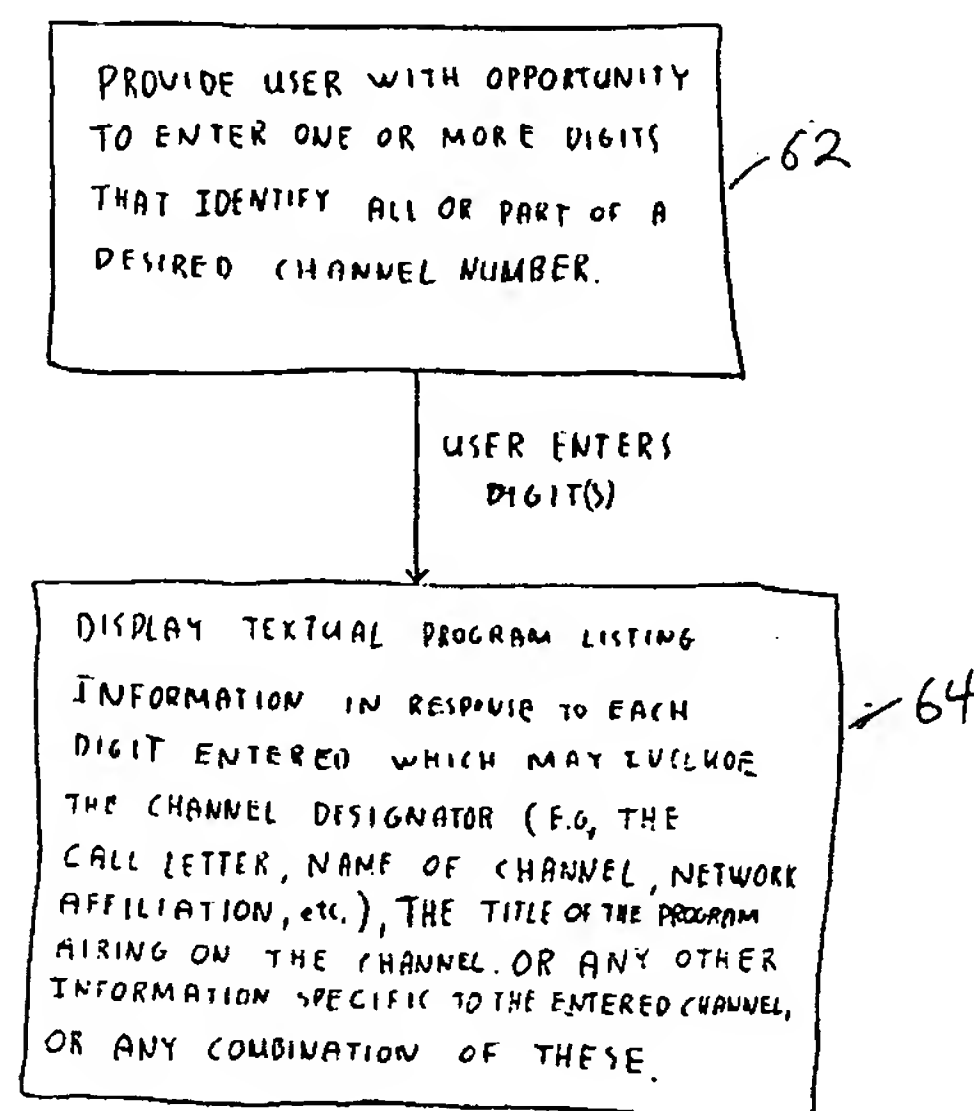


Fig. 3

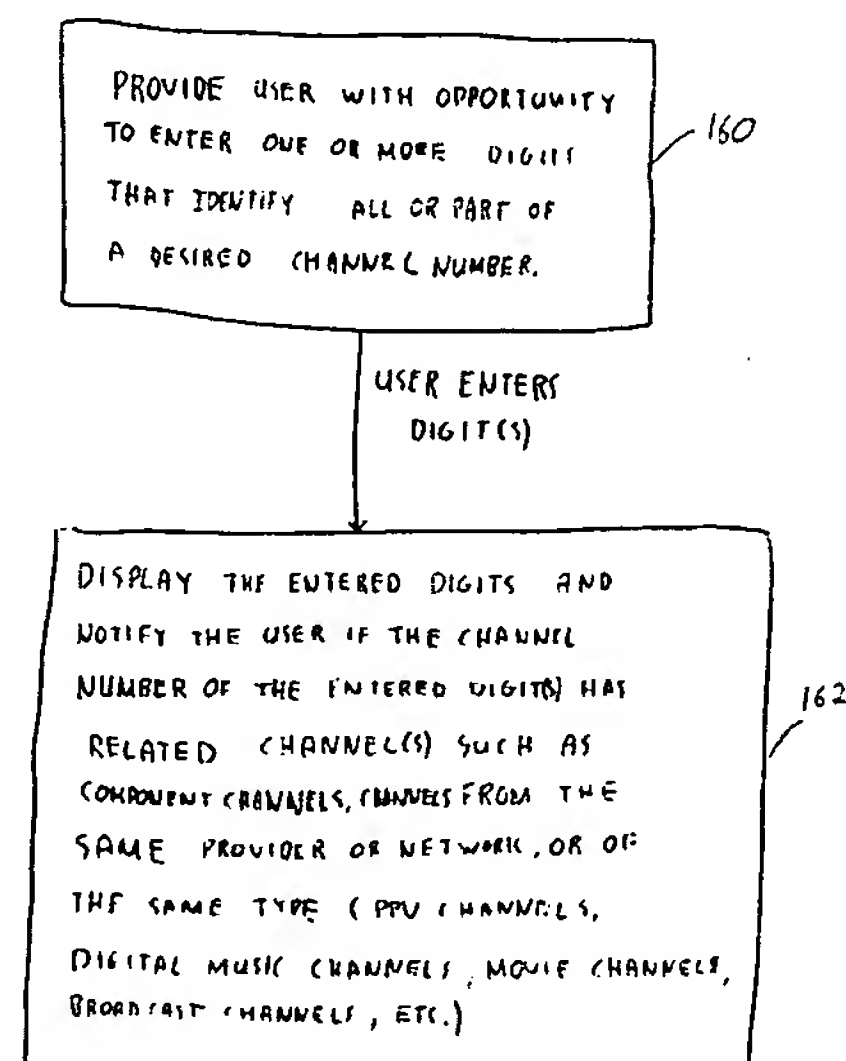


Fig. 9

<sup>5</sup> Column 2, lines 31-33.

<sup>6</sup> Column 2, lines 50-52.

Modifying Ellis in the manner described in the Office Action, (i.e., replacing step 62 with the press of a “Display” button of Noguchi, and then producing the screens of Fig. 11 of Ellis), would require replacing step 64 of Fig. 3 with step 162 of Fig. 9 and eliminate the display of the textual listing of step 64. Thus, there is no longer any logical connection between pressing a “Display” button and displaying the information of step 162. Further, as is clearly stated in step 162 of Fig. 9 of Ellis, the purpose of the display of Fig. 11 is to “DISPLAY THE ENTERED DIGITS AND NOTIFY THE USER IF THE CHANNEL NUMBER OF THE ENTERED DIGIT(S) HAS RELATED CHANNEL(S)”.<sup>7</sup>

What is clearly absent from the disclosure of Ellis and Noguchi, as well as the reasoning set forth to support the rejection, is any indication that hitting a “Display” button should cause the display of related channels. Thus, in the absence of any evidence or further reasoning provided by the Patent Office, it is respectfully submitted that one skilled in the art would not have been motivated to combine Noguchi and Ellis to achieve the claimed first channel selection technique.

**C. Even if Ellis and Noguchi Were Combined in the Manner Described by the Patent Office, the Resultant Combination Would Not Operate in the Same Manner as the Claimed First Channel Selecting Procedure**

First, Appellants’ first channel selecting procedure “fixes the main channel being currently received.” As clearly illustrated in Figs. 4 and 11 of Ellis (reproduced again below), the channel information of Fig. 4 and the subchannels

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<sup>7</sup> Emphasis added.



of Fig. 11 relate to channels entered by a user and not the currently displayed channel.

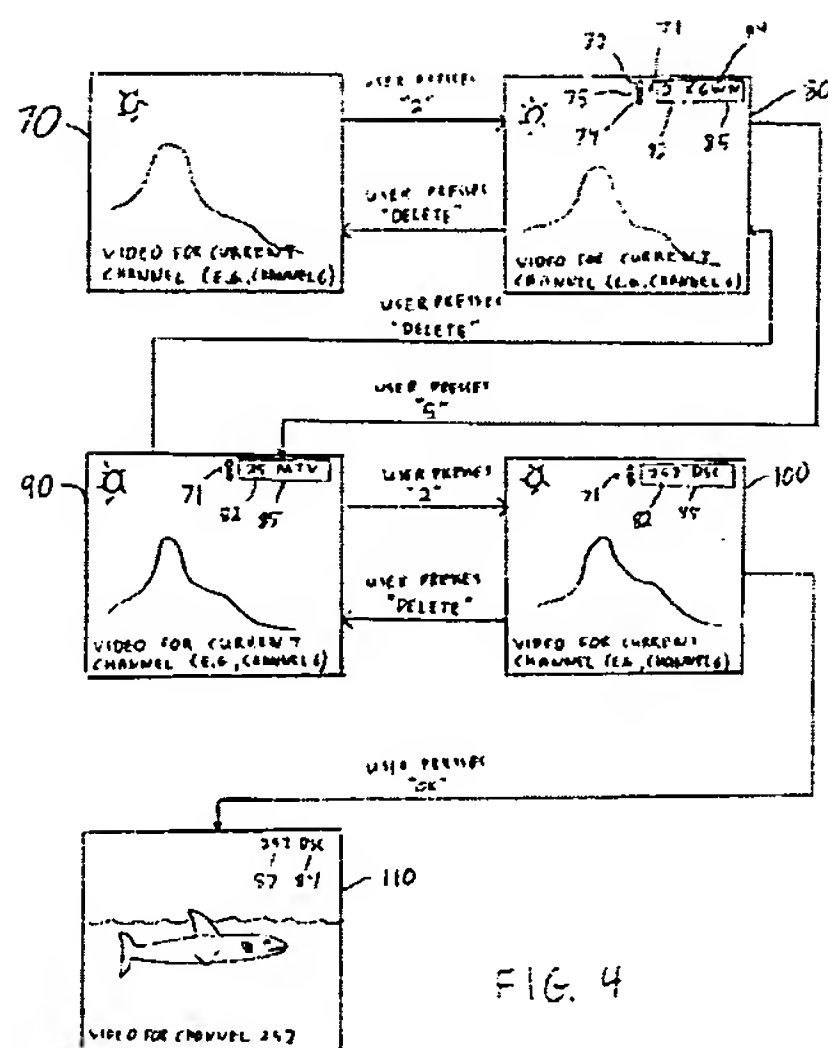


Fig. 4

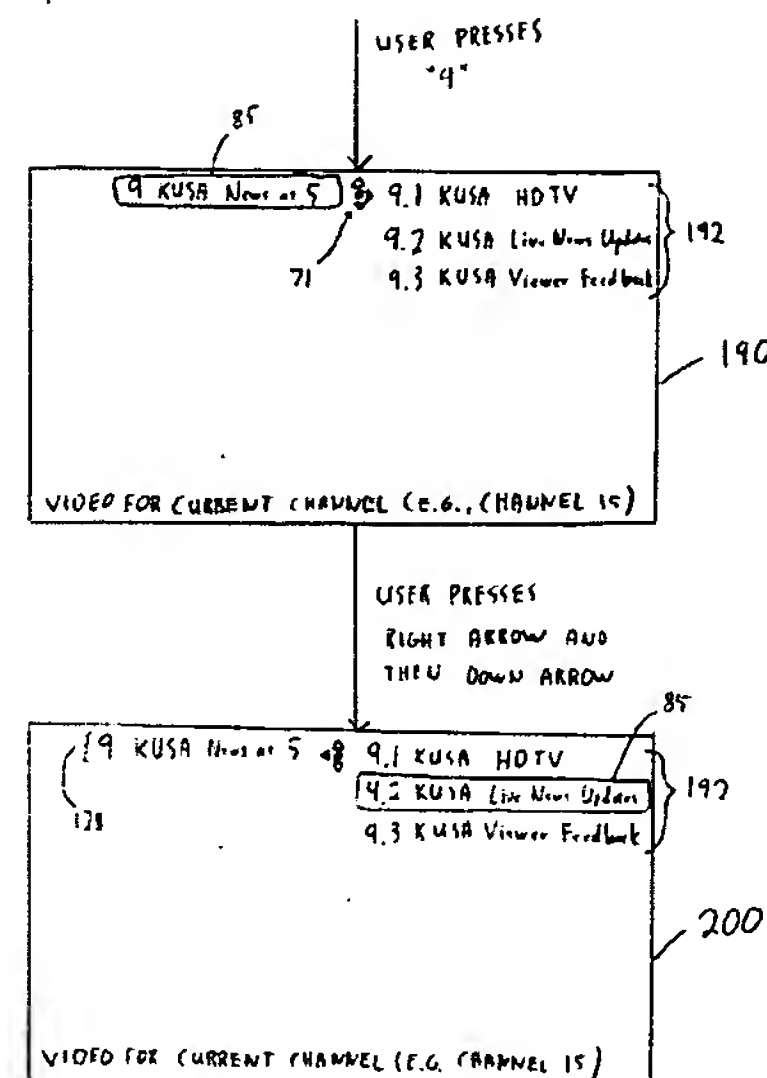


Fig. 11

In Fig. 4 the currently displayed channel is 6 and the entered digits are (2, 5, 2); and in Fig. 11 the displayed channel is 15 and the entered digit is 9. In contrast, Appellants' first channel selecting procedure "fixes the main channel being currently received." It appears that the position of the Patent Office is that one skilled in the art would have ignored Ellis' express disclosure that the information of Figs. 3 and 4 are displayed in response entering digits and replaced step 62 of Fig. 3 of Ellis with the display button of Noguchi.

Second, Appellants' first channel selecting procedure "waits for the sub-channel number input, and then fixes the sub-channel of the number of the numerical value inputted by the numerical-value input keys." In contrast, Ellis at best discloses that the related channel display technique of Figs. 9-11 allows selection of subchannels using arrow keys (see Fig. 11 reproduced again below).

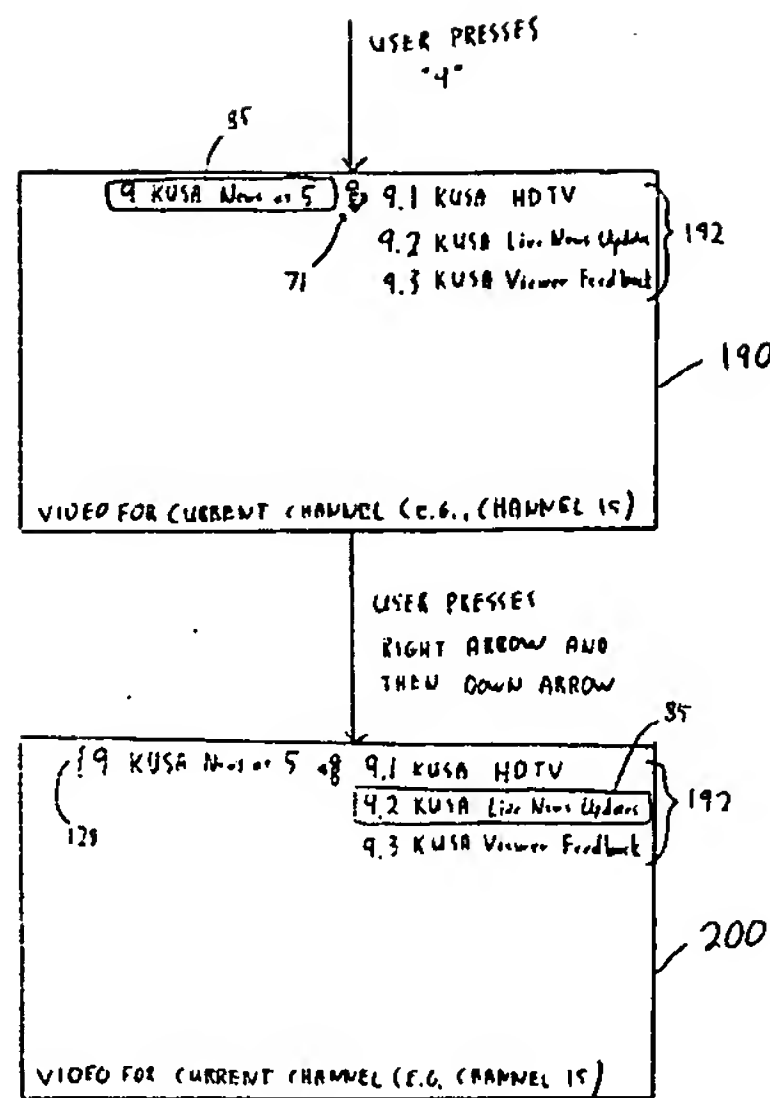


Fig. 11

Thus, even if one skilled in the art were motivated to combine Ellis and Noguchi and then further modify Ellis by combining the embodiments of Figs. 3 and 9, the resultant combination would at best disclose or suggest:

1. pressing a "Display" button to display information about a currently displayed channel;<sup>8</sup>
2. entering a digit of a main channel that is different from the currently displayed channel;<sup>9</sup>
3. displaying channels related to the main channel whose digit was entered;<sup>10</sup> and
4. using arrow keys to select a subchannel corresponding to the main channel whose digit was entered.<sup>11</sup>

In contrast, Appellants' first channel selecting procedure fixes:

- the main channel being currently received; and
- the sub-channel of the number of the numerical value inputted by the numerical-value input keys.

<sup>8</sup> As disclosed by Noguchi

<sup>9</sup> As disclosed by Ellis.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

**IV. The Rejection Fails to Consider Appellants' Claim Language as a Whole**

As set forth above, and discussed in the Appeal Brief, Appellants' novel and inventive first channel selecting procedure provides a particularly simple technique for selecting subchannels corresponding to the currently received main channel by only requiring the operation of the predetermined operation key that is not preceded by a numerical-value input key. As illustrated in the portion of claim 1 reproduced below, the aforementioned features that provide this simplicity are clearly recited in Appellants' claim 1.

wherein the first selecting procedure, when receiving an instruction by the predetermined operation key that is not preceded by the numerical-value input keys, fixes the main channel being currently received, and waits for the sub-channel number input, and then fixes the sub-channel of the number of the numerical value inputted by the numerical-value input keys,

Nevertheless, the Examiner's Answer states that the simple channel selecting procedure "is not found in the claim limitation"<sup>12</sup> and "is not disclosed in the claims."<sup>13</sup> Because the claim language reproduced above clearly covers the simple channel selection technique and based on the piecemeal approach in which various unrelated disclosures were cobbled together to reject Appellants' claims, it appears that this conclusion is reached by failing to consider this claim element as a whole, but only by considering little pieces of this claim element in isolation.

The Examiner's Answer also asserts that "[t]he limitation only states that a number key should not be used to fix the main channel"<sup>14</sup> and that "the first

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<sup>12</sup> Examiner's Answer at page 13.

<sup>13</sup> Examiner's Answer at page 14.

<sup>14</sup> Examiner's Answer at pages 13-14.

channel selection procedure only requires that it is not entered by pressing a number key.”<sup>15</sup> Again, it appears that the piecemeal manner in which the prior art references were cobbled together has led to this erroneous conclusion. Instead, the claim clearly recites that the first selecting procedure is performed “when receiving an instruction by the predetermined operation key that is not preceded by the numerical-value input keys.”<sup>16</sup>

#### V. The Patent Office Makes Conclusions Unsupported by the Record

As discussed repeatedly in this Reply Brief, as well as the Appeal Brief, all techniques disclosed by Ellis require an initial input of a numerical-value input key. From these statements the Patent Office concludes that “[b]y acknowledging that the only thing stopping Ellis from meeting the first channel selection procedure is the initial number input to display the channel banner (figure 3), the appellant is showing that by adding the DISPLAY button taught by Noguchi (figures 10 and 11) to display a channel banner would result in a combination that meets the limitation.”<sup>17</sup> First, in view of the complete absence of any disclosure or suggestion in the cited prior art (either alone or in combination) of being able to fix a main channel to that currently being displayed by selecting a predetermined operation key not preceded by a numeral-value input key, it is clear that the requirement of each and every technique of Ellis that a digit must be entered is more than just a minor difference, but instead is nothing more than the conventional channel selection techniques disclosed in Appellants’ Background section. Further, again as repeatedly argued both here

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<sup>15</sup> Examiner’s Answer at page 15.

<sup>16</sup> Emphasis added.

<sup>17</sup> Examiners’ Answer at pages 12 and 13.

and in the Appeal Brief, Noguchi's disclosure of a "Display" button to display a channel banner does not fix a main channel. Thus, Appellants' acknowledgement of the serious deficiencies of disclosures of Ellis with respect to the claimed first channel selecting procedure does not show that adding an unrelated display banner functionality "would result in a combination that meets" the claimed first channel selecting procedure.

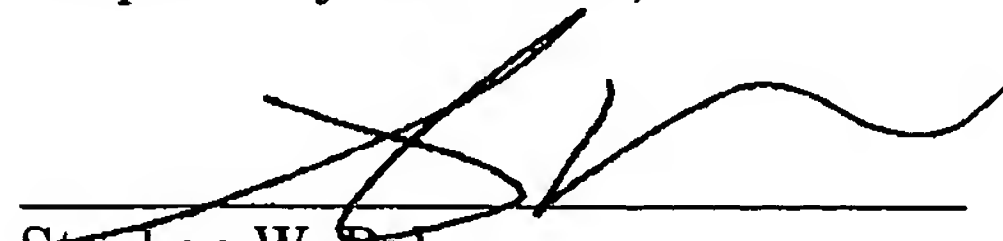
## VI. Conclusion

Because Shintani, Ellis and Noguchi each do not disclose Appellants' claimed first channel selecting procedure, the Patent Office acknowledges that each do not disclose such, one skilled in the art would not have combined Ellis and Noguchi in the manner proposed by the Patent Office and even if one skilled in the art would have made such a combination, the resultant combination would not operate in the same manner as that of Appellants' claimed first channel selecting procedure, the rejection of Appellants' claims is improper and should be withdrawn.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account no. 05-1323, Docket No.: 010482.50896US.

Respectfully submitted,

January 29, 2009

  
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